

Improving Academic Performance Among Native American Children

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Each of us has a different set of intelligences (Gardner, 1985 & 1995; Viadero, 1998) that have been nurtured during our young lives, that have matured during our adult lives, and that we tend to reinforce among our own children.

Traditionally, on my Tlingit side, an uncle or aunt passed these “skills” on to their maternal nephews and nieces as the primary mentors and teachers of young children. The system worked well because failure to learn was not allowed, it was a matter of clan survival.

The knowledge and skills transferred from one generation to the next allowed our ancestors to develop an intellectually and socially rich complex culture. In the modern context, we have allowed failure because many have not continued direct participation in, nor taken time to monitor the educational process; through a loss of language development (as a key to intellectual development); through a deterioration of skills and knowledge necessary for our cultural and social well being; and because spiritual and economic and situations have changed so drastically (Indian Nations At Risk, 1992).

From the perspective of academic progress, two of the most accurate predictors of a young person’s ability to succeed in school are reading readiness (phonemic awareness, vocabulary, alphabet naming, and listening comprehension) and two dimensions of a youngster’s social behavior: 1) interpersonal skills (the quality of social relationships with peers), and 2) work-related social skills (a child’s degree of independence, responsibility, and self-control) at 54 months of age (5 ½ years of age) (NICHD, 2004).

The most current information on improving academic performance tells us that there are three environmental influences linked to levels of academic performance among young children (NICHD, 2004). These influences include the following:

- 1) *High quality parenting* (the degree to which a youngster is provided with an enriched warm and responsive learning environment <which includes appropriate control and discipline over children> are closely associated with both higher first grade reading and mathematic skills).
- 2) *High quality child-care environments* (stimulating activity and nurturing as reflected in high quality parenting).
- 3) *High quality first-grade classrooms* (with a focus on literacy instruction, evaluative feedback, instructional conversation, and encouraging child responsibilities).

A formal RAND study of The Early Childhood Longitudinal Survey (ECLS), which is a five year study (in its fourth year) of young children entering kindergarten, provides us with some preliminary data on Native students (along with information on White,

Hispanic, and African American children) (Grissmer, Demmert, Towner, et al., (2004). This study tells us the following:

- 1) Native American children start kindergarten with significantly lower reading, mathematics, and general knowledge achievement scores than the other groups (statistically significant for reading achievement and only statistically significant for mathematics and general knowledge when compared to Whites).
- 2) Higher or lower achievement for reading, mathematics, and general knowledge is linked to a number of child, parent, and community characteristics (Grissmer, Demmert, Chun, Towner, Eiseman, & Cressell, 2004). These characteristics, or risk factors, include the following:
 - Education level of parents
 - Economic circumstances
 - Number of siblings
 - Age of mother at birth
 - Number and biological relationships of a child's caregivers
 - Language spoken at home
 - Frequency of reading to the child
 - Numbers of children's books in the home
 - Health of the child(as reported by the parent)
 - Birth-weight
 - Presence of learning, speech, and/or hearing disabilities
 - Emotional connection to the child

Additional analysis of this information tells us the following:

- 1) Multiple risk factors (the number of factors that are evident in a young child's environment) account for the highest and lowest predicted scores;
- 2) Rural students score lower on average than urban students; 70 percent of Native students live in rural areas;
- 3) Native students do as well or better than African and Hispanic Americans academically by grade four;
- 4) Family characteristics account for about one-half of the achievement gap between White and Native Americans; the remaining gap seems to be accounted for by characteristics outside the family and associated with the wider community (i.e. social capital – poor, usually rural environments).

The Research Literature

There is formal evidence that culturally based education (CBE) programs, with strong Native language programs influence a youngster's academic, social, and cultural,

development including an individual's identity in a positive way (Demmert, 2001; Demmert & Towner, 2003).

Theoretical Construct (Influences of Genetics, Culture, and Experiences on Learning).

Genetics, cultural environment, and practical experiences combine to influence the development of children early in their lives, and determine a person's cognitive, social, psychological, spiritual, and physical development. The transfer of knowledge and tradition from one generation to the next must take into account the cultural settings, the resources, and the social priorities of a people in order to motivate the young to strengthen local and pursue new knowledge.

Language, tradition, social activity, prior knowledge, and the ability to apply what one has learned to new problems, combine to build the intellectual preferences and cognitive levels of an individual (Afifi & Bergman, 2002; Bowman, Donovan, Burns eds., 2001; Begley, 1996; Sousa, 1992; Bruner, 1966; Ogbu, 2003; Gardner, 1985 & 1995; Viadero, 1998; Vygotsky, 1994).

According to Jerome Bruner "...culture shapes mind, ...it provides us with the tool kit by which we construct not only our worlds but our very conceptions of our selves and our powers." He further states that "...you cannot understand mental activity unless you take into account the cultural setting and its resources, the very things that give mind its shape and scope. Learning, remembering, talking, imaging: all of them are made possible by participating in a culture (Bruner, 1996).

There are three established educational theories regarding Native peoples that are closely aligned with what we call "Culturally Based Education (CBE), and that are believed to be associated with improved academic performance among Native students (Demmert & Towner 2003).

1. *Cultural Compatibility Theory*. Levels of congruence: the more closely aligned the human interactions in the school and in the classroom, are aligned with those of the community, the more likely the goals of the school will be reached
2. *Cognitive Theory*. Introducing new knowledge through an association with prior knowledge: for learning to occur, relevant prior knowledge in a person's long term memory must be stimulated or utilized, with this new information undergoing some form of processing that focuses on conceptual characteristics of the new information (such as its meaning, personal and social relevance, or relationships to prior knowledge and experience) as a means of improving learning and recall.
3. *Cultural-Historical-Activity Theory (CHAT)*. Issues of culture, language, cognition, community and socialization are central to learning. The primary socialization of infants and young children (as well as all later socialization into new communities of practice) is accomplished through joint, meaningful activity with guidance by more

accomplished participants, principally through language exchanges or other semiotic processes.

Language vocabularies and routines acquired by learners through these processes are the elements that account for community, linguistic, and cultural continuity, and are the primary cognitive tools for individual and group problem solving and adaptations (e.g., culturally-based secondary socialization processes like schooling can be facilitated by activating the learners' cognitive and linguistic tools laid down by community socialization).

Primary to this hypothesis is that activity (primarily joint activity) is the setting in which language and cognition are developed, and that patterns of activity have a cultural basis.

Critical Elements of Culturally Based Education (Demmert & Towner 2003)

- 1) Recognition and use of Native American (American Indian, Alaska Native, Native Hawaiian) languages (this may include use bilingually, or as a first or second language).
- 2) Pedagogy that stresses traditional cultural characteristics, and adult-child interactions as the starting place for one's education (mores that are currently practiced in the community, and which may differ community to community).
- 3) Pedagogy in which teaching strategies are congruent with the traditional culture as well as contemporary ways of knowing and learning (opportunities to observe, opportunities to practice, and opportunities to demonstrate skills).
- 4) Curriculum that is based on traditional culture, which recognizes the importance of Native spirituality, and places the education of young children in a contemporary context (e.g., use and understanding of the visual arts, legends, oral histories, and fundamental beliefs of the community).
- 5) Strong Native community participation (including parents, elders, other community resources) in educating children and evident in the curriculum, planning, and operation of school/community activities.
- 6) Knowledge and use of the social and political mores of the community.

Priorities for improving academic performance:

- 1) *Build a strong language base among young children, in a cultural context that supports the Tlingit community, as a key to improving academic performance. This may be done in more than one language.*

Broca's area of the brain is known as the speech center and when a young person learns more than one language simultaneously the second, or other languages, use this part of

the brain. Later in life another part of the brain is used, and it takes more brain work to learn the second or other languages. (Ackerman, 2004).

2) Build partnerships between the university, the school, and the Tlingit community with a focus on teacher competence in pedagogy, content area, and the ability to work with the community served by the school (including the recruitment and training of more Tlingit teachers).

An excellent model for high standards in teaching can be found in the Center for Research on Education, Diversity, and Excellence (CREDE) web-site (<http://www.cal.org/crede/pubs/>). The CREDE principles include the following:

- 1) Teachers and students working together;
- 2) Developing language skills in all curriculum;
- 3) Connecting lessons to students' lives;
- 4) Engaging students with challenging lessons; and
- 5) Emphasizing dialogue over lecture.

3) Build a comprehensive school curriculum that is culturally based (CBE), that promotes language development in both the Native language and English early, and that provides the literacy base so critical to improved academic performance.

This “blueprint” for improving academic performance of Tlingit youth includes an emphasis on creating early environments for young children that will promote development of a youngster’s many intelligences; strengthen social and cultural mores associated with Tlingit identity and contemporary priorities; and partnerships important to improving schools and schooling.

This “blueprint” will be modified and strengthened as part of a National Colloquium designed to focus on the best research available for improving academic performance and on gaps in the research that must be funded if we are to expand current knowledge on the best ways to improve academic performance of Native students.

This Colloquium is scheduled for Santa Fe, New Mexico in March 2005 and will offer practitioners, researchers, federal program officials, and national education partners a unique opportunity to discuss and debate what we now know about cognitive development; an opportunity to explore the role of culture and early experiences in that development; and promote critical research priorities

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